

10/23/2015 Mr. Terry Taylor Anderson Mulholland & Associates, Inc. 2700 Westchester Avenue Suite 417 Purchase NY 10577

Project Name: BMS VI

Project #:

Workorder #: 1510351B

Dear Mr. Terry Taylor

The following report includes the data for the above referenced project for sample(s) received on 10/20/2015 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 (5&20 ppbv) are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to the Project Manager: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

**Brian Whittaker** 

**Project Manager** 

Brian Whittaker



#### **WORK ORDER #: 1510351B**

Work Order Summary

CLIENT: Mr. Terry Taylor BILL TO: Accounts Payable

Anderson Mulholland & Associates, Anderson Mulholland & Associates, Inc.

2700 Westchester Avenue

2700 Westchester Avenue Suite 417

Suite 417 Purchase, NY 10577

PHONE: Purchase, NY 10577
(914) 251-0400 P.O.#

FAX: PROJECT # BMS VI

**DATE RECEIVED:** 10/20/2015 CONTACT: Brian Whittaker DATE COMPLETED: 10/23/2015

		RECEIPT	FINAL
<u>NAME</u>	TEST	VAC./PRES.	<b>PRESSURE</b>
B30IA-1 101715	Modified TO-15 (5&20 ppbv	5.7 "Hg	5 psi
B30IA-2 101715	Modified TO-15 (5&20 ppbv	6.1 "Hg	4.8 psi
B30IA-3 101715	Modified TO-15 (5&20 ppbv	7.8 "Hg	4.1 psi
B30IA-4 101715	Modified TO-15 (5&20 ppbv	4.7 "Hg	5.1 psi
B30IA-4D 101715	Modified TO-15 (5&20 ppbv	3.7 "Hg	4.8 psi
B30IA-5 101715	Modified TO-15 (5&20 ppbv	5.9 "Hg	5.2 psi
B42IA-1 101715	Modified TO-15 (5&20 ppbv	6.1 "Hg	4.9 psi
B42IA-2 101715	Modified TO-15 (5&20 ppbv	4.5 "Hg	4.9 psi
B42IA-3 101715	Modified TO-15 (5&20 ppbv	2.6 "Hg	4.9 psi
B3042AA	Modified TO-15 (5&20 ppbv	8.8 "Hg	4.9 psi
B8IA-2 101715	Modified TO-15 (5&20 ppbv	4.5 "Hg	4.9 psi
B8IA-2D 101715	Modified TO-15 (5&20 ppbv	7.1 "Hg	5.1 psi
B8AA-1 101715	Modified TO-15 (5&20 ppbv	4.5 "Hg	5 psi
Lab Blank	Modified TO-15 (5&20 ppbv	NA	NA
CCV	Modified TO-15 (5&20 ppbv	NA	NA
	B30IA-1 101715 B30IA-2 101715 B30IA-3 101715 B30IA-4 101715 B30IA-4D 101715 B30IA-5 101715 B42IA-1 101715 B42IA-2 101715 B42IA-3 101715 B3042AA B8IA-2 101715 B8IA-2D 101715 B8AA-1 101715 Lab Blank	B30IA-1 101715         Modified TO-15 (5&20 ppbv           B30IA-2 101715         Modified TO-15 (5&20 ppbv           B30IA-3 101715         Modified TO-15 (5&20 ppbv           B30IA-4 101715         Modified TO-15 (5&20 ppbv           B30IA-4D 101715         Modified TO-15 (5&20 ppbv           B30IA-5 101715         Modified TO-15 (5&20 ppbv           B42IA-1 101715         Modified TO-15 (5&20 ppbv           B42IA-2 101715         Modified TO-15 (5&20 ppbv           B42IA-3 101715         Modified TO-15 (5&20 ppbv           B3042AA         Modified TO-15 (5&20 ppbv           B8IA-2 101715         Modified TO-15 (5&20 ppbv           B8IA-2D 101715         Modified TO-15 (5&20 ppbv           B8AA-1 101715         Modified TO-15 (5&20 ppbv	NAME         TEST         VAC./PRES.           B30IA-1 101715         Modified TO-15 (5&20 ppbv         5.7 "Hg           B30IA-2 101715         Modified TO-15 (5&20 ppbv         6.1 "Hg           B30IA-3 101715         Modified TO-15 (5&20 ppbv         7.8 "Hg           B30IA-4 101715         Modified TO-15 (5&20 ppbv         4.7 "Hg           B30IA-4D 101715         Modified TO-15 (5&20 ppbv         3.7 "Hg           B30IA-5 101715         Modified TO-15 (5&20 ppbv         5.9 "Hg           B42IA-1 101715         Modified TO-15 (5&20 ppbv         6.1 "Hg           B42IA-2 101715         Modified TO-15 (5&20 ppbv         4.5 "Hg           B42IA-3 101715         Modified TO-15 (5&20 ppbv         8.8 "Hg           B8IA-2 101715         Modified TO-15 (5&20 ppbv         4.5 "Hg           B8IA-2D 101715         Modified TO-15 (5&20 ppbv         7.1 "Hg           B8AA-1 101715         Modified TO-15 (5&20 ppbv         7.1 "Hg           B8AA-1 101715         Modified TO-15 (5&20 ppbv         7.1 "Hg           B8AA-1 101715         Modified TO-15 (5&20 ppbv         A.5 "Hg           B8AA-1 101715         Modified TO-15 (5&20 ppbv         A.5 "Hg

	10	ude/	Tlayer		
CERTIFIED BY:			0	DATE: $\frac{10/2}{1}$	23/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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#### LABORATORY NARRATIVE EPA Method TO-15 Soil Gas Anderson Mulholland & Associates, Inc. Workorder# 1510351B

Thirteen 6 Liter Summa Canister (100% Certified) samples were received on October 20, 2015. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 50 mLs of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

#### **Receiving Notes**

There were no receiving discrepancies.

#### **Analytical Notes**

There were no analytical discrepancies.

## **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

- B Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
  - J Estimated value.
  - E Exceeds instrument calibration range.
  - S Saturated peak.
  - Q Exceeds quality control limits.
- U Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.
  - UJ- Non-detected compound associated with low bias in the CCV
  - N The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



# **Summary of Detected Compounds EPA METHOD TO-15 GC/MS**

Client Sample ID: B30IA-1 101715

Lab ID#: 1510351B-01A
No Detections Were Found.

**Client Sample ID: B30IA-2 101715** 

Lab ID#: 1510351B-02A
No Detections Were Found.

Client Sample ID: B30IA-3 101715

Lab ID#: 1510351B-03A
No Detections Were Found.

Client Sample ID: B30IA-4 101715

Lab ID#: 1510351B-04A
No Detections Were Found.

Client Sample ID: B30IA-4D 101715

Lab ID#: 1510351B-05A
No Detections Were Found.

**Client Sample ID: B30IA-5 101715** 

Lab ID#: 1510351B-06A
No Detections Were Found.

**Client Sample ID: B42IA-1 101715** 

Lab ID#: 1510351B-07A
No Detections Were Found.

Client Sample ID: B42IA-2 101715

Lab ID#: 1510351B-08A
No Detections Were Found.

Client Sample ID: B42IA-3 101715

Lab ID#: 1510351B-09A



# **Summary of Detected Compounds EPA METHOD TO-15 GC/MS**

**Client Sample ID: B42IA-3 101715** 

Lab ID#: 1510351B-09A
No Detections Were Found.

Client Sample ID: B3042AA

Lab ID#: 1510351B-10A
No Detections Were Found.

Client Sample ID: B8IA-2 101715

Lab ID#: 1510351B-11A
No Detections Were Found.

Client Sample ID: B8IA-2D 101715

Lab ID#: 1510351B-12A
No Detections Were Found.

Client Sample ID: B8AA-1 101715

Lab ID#: 1510351B-13A
No Detections Were Found.



## Client Sample ID: B30IA-1 101715 Lab ID#: 1510351B-01A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102231	Date of Collection: 10/18/15 11:00:00 A
Dil. Factor:	1.66	Date of Analysis: 10/22/15 10:39 PM

0	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	83	Not Detected	110	Not Detected

• •		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



## Client Sample ID: B30IA-2 101715 Lab ID#: 1510351B-02A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102232	Date of Collection: 10/18/15 11:26:00 A
Dil. Factor:	1.67	Date of Analysis: 10/22/15 11:04 PM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	84	Not Detected	110	Not Detected

••		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	100	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	97	70-130	



## Client Sample ID: B30IA-3 101715 Lab ID#: 1510351B-03A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102235	Date of Collection: 10/18/15 11:59:00 A
Dil. Factor:	1.72	Date of Analysis: 10/23/15 07:13 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	86	Not Detected	110	Not Detected

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130



## Client Sample ID: B30IA-4 101715 Lab ID#: 1510351B-04A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102234	Date of Collection: 10/15/15 11:38:00 A
Dil. Factor:	1.60	Date of Analysis: 10/23/15 06:52 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	80	Not Detected	100	Not Detected

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130



## Client Sample ID: B30IA-4D 101715 Lab ID#: 1510351B-05A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102236	Date of Collection: 10/18/15 11:38:00 A
Dil. Factor:	1.51	Date of Analysis: 10/23/15 07:42 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	76	Not Detected	99	Not Detected

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



## Client Sample ID: B30IA-5 101715 Lab ID#: 1510351B-06A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102237	Date of Collection: 10/18/15 11:32:00 A
Dil. Factor:	1.69	Date of Analysis: 10/23/15 08:03 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	84	Not Detected	110	Not Detected

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130



## Client Sample ID: B42IA-1 101715 Lab ID#: 1510351B-07A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102238	Date of Collection: 10/18/15 12:38:00 P
Dil. Factor:	1.68	Date of Analysis: 10/23/15 08:31 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	84	Not Detected	110	Not Detected

		Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130



## Client Sample ID: B42IA-2 101715 Lab ID#: 1510351B-08A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102239	Date of Collection: 10/18/15 7:54:00 AM
Dil. Factor:	1.57	Date of Analysis: 10/23/15 08:51 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	78	Not Detected	100	Not Detected

		Method Limits	
Surrogates	%Recovery		
1,2-Dichloroethane-d4	104	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	96	70-130	



## Client Sample ID: B42IA-3 101715 Lab ID#: 1510351B-09A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102240	Date of Collection: 10/18/15 7:52:00 AM
Dil. Factor:	1.46	Date of Analysis: 10/23/15 09:11 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	73	Not Detected	96	Not Detected

		Method Limits	
Surrogates	%Recovery		
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	97	70-130	



## Client Sample ID: B3042AA Lab ID#: 1510351B-10A

## EPA METHOD TO-15 GC/MS

File Name:	14102241	Date of Collection: 10/18/15 1:45:00 PM
Dil. Factor:	1.88	Date of Analysis: 10/23/15 09:31 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	94	Not Detected	120	Not Detected

• •		Method Limits	
Surrogates	%Recovery		
1,2-Dichloroethane-d4	102	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	97	70-130	



## Client Sample ID: B8IA-2 101715 Lab ID#: 1510351B-11A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102242	Date of Collection: 10/18/15 11:45:00 A
Dil. Factor:	1.57	Date of Analysis: 10/23/15 09:58 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	78	Not Detected	100	Not Detected

		Method Limits	
Surrogates	%Recovery		
1,2-Dichloroethane-d4	103	70-130	
Toluene-d8	99	70-130	
4-Bromofluorobenzene	95	70-130	



## Client Sample ID: B8IA-2D 101715 Lab ID#: 1510351B-12A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102243	Date of Collection: 10/18/15 11:45:00 A
Dil. Factor:	1.77	Date of Analysis: 10/23/15 10:18 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	88	Not Detected	120	Not Detected

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	95	70-130



# Client Sample ID: B8AA-1 101715 Lab ID#: 1510351B-13A

## **EPA METHOD TO-15 GC/MS**

File Name:	14102244	Date of Collection: 10/18/15 11:45:00 A
Dil. Factor:	1.58	Date of Analysis: 10/23/15 10:56 AM

Compound	Rpt. Limit	Amount	Rpt. Limit	Amount
	(ppbv)	(ppbv)	(ug/m3)	(ug/m3)
Methanol	79	Not Detected	100	Not Detected

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	101	70-130	
Toluene-d8	102	70-130	
4-Bromofluorobenzene	96	70-130	



## Client Sample ID: Lab Blank Lab ID#: 1510351B-14A

## EPA METHOD TO-15 GC/MS

File Name: Dil. Factor:	14102230 1.00	Date of Collection: NA Date of Analysis: 10/22/15 10:13 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methanol	50	Not Detected	66	Not Detected

## **Container Type: NA - Not Applicable**

	2/2	Method
Surrogates	%Recovery	Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



# Client Sample ID: CCV Lab ID#: 1510351B-15A

#### **EPA METHOD TO-15 GC/MS**

File Name: 14102229a Date of Collection: NA
Dil. Factor: 1.00 Date of Analysis: 10/22/15 09:51 PM

Compound%RecoveryMethanol100

**Container Type: NA - Not Applicable** 

		Method	
Surrogates	%Recovery	Limits	
1,2-Dichloroethane-d4	100	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	100	70-130	